

✓ Please expedite
Revised 7/20, SEE A.O. 1774

Access DB# 1160578

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Heleen Ferraro Examiner #: 70058 Date: 7/26/05
Art Unit: 1713 Phone Number: 302-1108 Serial Number: 10/652,495
Mail Box and Bldg/Room Location: REM-10A29 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

SCIENTIFIC REFERENCE BR
Sci & Tech Inf. Ctr.

Title of Invention: SEE ATTACHED JUL 26 RECD

Inventors (please provide full names): ↓ Pat. & T.M. Office

Earliest Priority Filing Date: 9/8/03 *Claims 4-9 are pending

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

A polymer/copolymer containing recurring units from polymerizable (vinyl or allyl) group containing azo dye monomer defined in claim 4 and a (meth)acrylate monomer comonomer and further copolymerize with siloxane oligomer (claim 8).
See attached p. 10-13 of each ~~spec~~ monomer species disclosed.
Many thanks!

Utility
optical, ocular lens, ophthalmic devices

STAFF USE ONLY

Searcher: K. Fuller
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: _____
Date Completed: 7/27/05
Searcher Prep & Review Time: 40
Clerical Prep Time: _____
Online Time: 46

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 2
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN ✓
Dialog _____
Questel/Orbit _____
Dr. Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
- Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

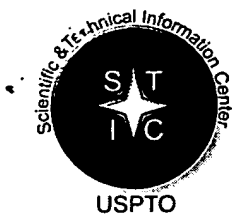
Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

- Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:



STIC Search Report

EIC 1700

STIC Database Tracking Number: 160578

**TO: Helen Pezzuto
Location: REM 10A29
Art Unit : 1713
July 27, 2005**

Case Serial Number: 10/657495

**From: Kathleen Fuller
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov**

Search Notes

=> file reg

FILE 'REGISTRY' ENTERED AT 12:58:53 ON 27 JUL 2005

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 26 JUL 2005 HIGHEST RN 857144-48-0

DICTIONARY FILE UPDATES: 26 JUL 2005 HIGHEST RN 857144-48-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:

<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 12:58:57 ON 27 JUL 2005

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FILE COVERS 1907 - 27 Jul 2005 VOL 143 ISS 5

FILE LAST UPDATED: 26 Jul 2005 (20050726/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

=> d que

L18 STR

Cb~N~N~Cb~G1
1 2 3 4 5Ak~N~G2~C=CH~G3
@6 7 8 9 10 11O~C~O
13 @14 15N~G2~C=CH~G3
@17 18 19 20 21
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 31 \\
 O \\
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 N \sim Ak \sim O \sim C \sim G4 \\
 @23 \ 24 \ 25 \ 26 \ 27
 \end{array}$$
Ak @32 Ak~N
33 @34

VAR G1=6/17/23
 REP G2=(0-10) C
 VAR G3=H/AK/14
 VAR G4=32/34

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS UNS AT 1

GGCAT IS UNS AT 4

GGCAT IS UNS AT 32

GGCAT IS UNS AT 33

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 28

STEREO ATTRIBUTES: NONE

L20 2630 SEA FILE=REGISTRY SSS FUL L18

L22 1458 SEA FILE=HCAPLUS ABB=ON L20

L23 514 SEA FILE=HCAPLUS ABB=ON L22 (L) PREP/RL

L24 4 SEA FILE=HCAPLUS ABB=ON L23 AND (LENS? OR OCULAR? OR OPHTHALM?
OR EYE#)

L25 39 SEA FILE=HCAPLUS ABB=ON L22 AND ?SILOXAN?

L26 25 SEA FILE=HCAPLUS ABB=ON L25 AND OPTIC?

L27 30 SEA FILE=HCAPLUS ABB=ON L23 AND PHARMACE?/SC, SX

L28 3 SEA FILE=HCAPLUS ABB=ON L25 AND L27

L29 1 SEA FILE=HCAPLUS ABB=ON L26 AND L27

L30 4 SEA FILE=HCAPLUS ABB=ON L24 OR L28 OR L29

L31 4 SEA FILE=HCAPLUS ABB=ON L23 AND ?OCULAR?

L32 4 SEA FILE=HCAPLUS ABB=ON L30 OR L31

L33 11 SEA FILE=HCAPLUS ABB=ON L22 AND (LENS? OR ?OCULAR? OR
OPHTHALM? OR EYE#)

L34 11 SEA FILE=HCAPLUS ABB=ON (L30 OR L31 OR L32 OR L33)

=> d l34 1-11 bib abs ind hitstr

L34 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:220216 HCAPLUS

DN 142:285299

TI Process for making silicone intraocular lens with blue
light absorption properties using reactive dyes for hydrosilationIN Lai, Yu-Chin; Ruscio, Dominic V.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DT Patent

2, 630 structures
from the query

11 CA references with
utility

LA English

FAN.CNT 1

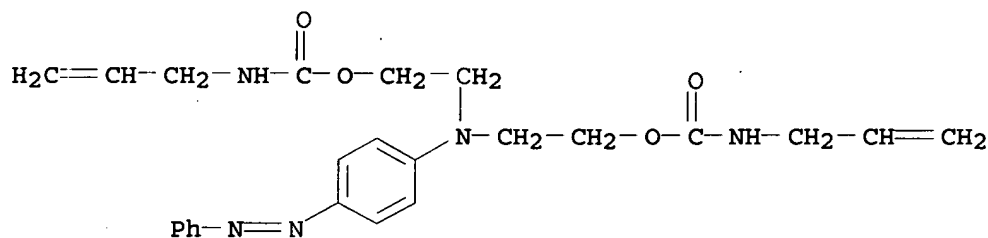
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005055091	A1	20050310	US 2003-657781	20030908
	WO 2005025632	A1	20050324	WO 2004-US27006	20040819
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2003-657781	A	20030908		
AB	A process for producing silicone intraocular lenses (IOLs) capable of absorbing blue light. Intraocular lenses so produced block blue light from reaching the retina of an eye implanted with the IOL. By blocking blue light from reaching the retina, the IOL thereby prevents potential damage to the retina.				
IC	ICM A61F002-14				
INCL	623005160; 623004100; 623006600; 623920000; 427002240				
CC	63-7 (Pharmaceuticals)				
ST	silicone intraocular eye lens blue light absorption reactive dye				
IT	Light (blue; process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				
IT	Prosthetic materials and Prosthetics (implants; process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				
IT	Eye (lens, implants; process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				
IT	Coating materials Coating process Hydrosilylation Intraocular lenses Optical absorption Reactive dyes (process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				
IT	Polysiloxanes, biological studies RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				
IT	7440-06-4, Platinum, biological studies 7440-06-4D, Platinum, complexes with divinyltetramethyldisiloxane/cyclovinylmethylsiloxane 30110-75-9D, platinum complexes RL: CAT (Catalyst use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (process for making silicone intraocular lens with blue light absorption properties using reactive dyes for hydrosilation)				

IT 847161-51-7 847161-54-0 847161-57-3
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

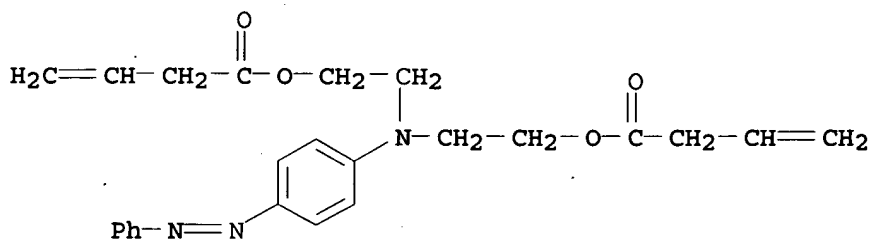
IT 2554-06-5 2627-95-4
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

IT 847161-51-7 847161-54-0 847161-57-3
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (process for making silicone **intraocular lens** with blue light absorption properties using reactive dyes for hydrosilation)

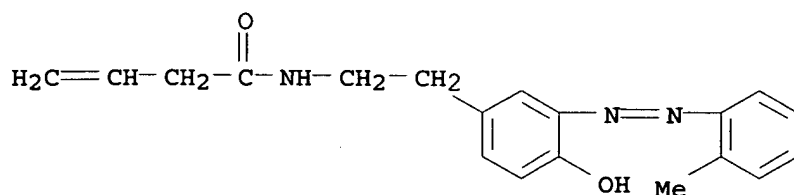
RN 847161-51-7 HCAPLUS
 CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-54-0 HCAPLUS
 CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-57-3 HCAPLUS
 CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azol]phenyl]ethyl]- (9CI) (CA INDEX NAME)



L34 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:220215 HCAPLUS

DN 142:285298

TI Process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes

IN Lai, Yu-Chin; Ruscio, Dominic V.; Green, George F.

PA USA

SO U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2005055090	A1	20050310	US 2003-657356	20030908
WO 2005026787	A1	20050324	WO 2004-US26776	20040819
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2003-657356 A 20030908

AB A process for producing **intraocular lenses** (IOLs) capable of absorbing blue light and UV light using photo curing. **Intraocular lenses** so produced block blue light and UV light from reaching the retina of an **eye** implanted with the IOL. By blocking blue light and UV light from reaching the retina, the IOL thereby prevents potential damage to the retina.

IC ICM A61F002-14

INCL 623005160; 623006600; 623004100; 623920000

CC 63-7 (Pharmaceuticals)

ST **intraocular eye lens** blue light absorption refractive index monomer

IT Light

(blue; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

IT Prosthetic materials and Prosthetics

(implants; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

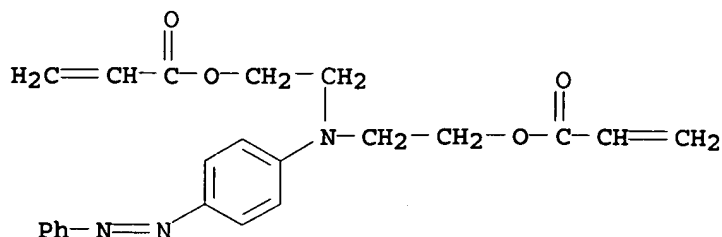
IT **Eye**

- (lens, implant; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Crosslinking
(photochem.; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Ketones, uses
Salts, uses
RL: CAT (Catalyst use); USES (Uses)
(photopolymn. initiators; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Polymerization catalysts
(photopolymn.; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Acrylic polymers, biological studies
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(polysiloxane-; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Azo dyes
Contact lenses
Hydrogels
Intraocular lenses
Optical absorption
Refractive index
UV radiation
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Light sources
(xenon lamp; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT Reactive dyes
(yellow; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 2170-60-7 4409-13-6 71819-94-8 96478-09-0, 2-(2'-Hydroxy-5'-methacryoxyethylphenyl)-2H-benzotriazole 96478-15-8, 2-[3'-tert-Butyl-2'-hydroxy-5'-(3''-methacryloyloxypropyl)phenyl]-5-chlorobenzotriazole 122430-79-9, 2-[3'-tert-Butyl-5'-(3''-dimethylvinylsilylpropoxy)-2'-hydroxyphenyl]-5-methoxybenzotriazole 275371-71-6
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(UV absorbent; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 2177-70-0, Phenyl methacrylate 2495-37-6, Benzyl methacrylate 3683-12-3, 2-Phenylethyl methacrylate 3683-14-5, 3-Phenylpropyl methacrylate 14908-64-6 92141-11-2 93858-45-8 133309-57-6 139612-56-9 203578-59-0 246870-69-9 246870-70-2 246870-71-3 247020-20-8 247020-22-0 247020-24-2 247020-26-4 247020-29-7 247020-31-1 247020-33-3 247020-36-6 247020-39-9 847413-34-7 847413-35-8 847413-36-9 847413-37-0 847413-38-1

- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(high refractive index monomer; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 7440-63-3, Xenon, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(lamp; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 290-87-9D, Triazine, derivs.
RL: CAT (Catalyst use); USES (Uses)
(photopolymer. initiators; process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 814-68-6, Acryloyl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 2452-84-8P, Solvent Yellow 58 847413-39-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 524699-07-8P
RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 95-14-7DP, Benzotriazole, methacrylate derivs., polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2495-35-4DP, Benzyl acrylate, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2495-37-6DP, Benzyl methacrylate, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 2680-03-7DP, N,N-Dimethylacrylamide, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 847413-39-2DP, polymers with hydroxy-terminated **polysiloxane** urethane methacrylates and (meth)acrylates 847413-40-5DP, reaction products with hydroxyethyl methacrylate, polymers with (meth)acrylates
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic acid, esters, polymers
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)
- IT 847413-39-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(process for manufacturing **intraocular lenses** with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

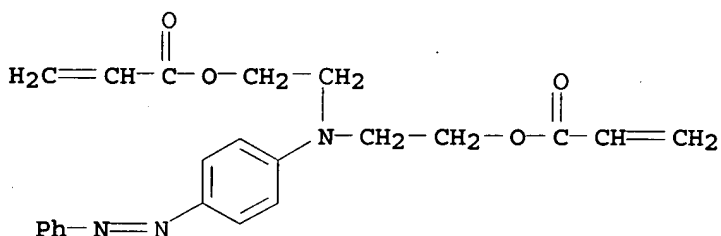
monomers and reactive yellow dyes)

RN 847413-39-2 HCAPLUS

CN 2-Propenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester
(9CI) (CA INDEX NAME)

IT 847413-39-2DP, polymers with hydroxy-terminated polysiloxane urethane methacrylates and (meth)acrylates
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (process for manufacturing intraocular lenses with blue light and UV absorption characteristics using high refractive index monomers and reactive yellow dyes)

RN 847413-39-2 HCAPLUS

CN 2-Propenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester
(9CI) (CA INDEX NAME)

L34 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:220187 HCAPLUS

DN 142:298999

TI High refractive index silicone-containing prepolymers with blue light absorption capability

IN Lai, Yu-Chin; Ruscio, Dominic V.

PA USA

SO U.S. Pat. Appl. Publ., 7 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005054802	A1	20050310	US 2003-657355	20030908
	WO 2005026788	A1	20050324	WO-2004-US27065	20040819
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				

LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

PRAI US 2003-657355 A 20030908

AB A process for producing silicone-containing prepolymers capable of absorbing blue light for use in the production of relatively high refractive index polymeric compns. is described herein. Polymeric compns. so produced are useful in the production of **ophthalmic** devices such as for example **intraocular lenses** and corneal inlays. Thus, 51.55 g hexamethylcyclotrisiloxane and 25.98 g dichloromethylsilane were reacted in the presence of hexamethylphosphoric triamide to give heptamethylcyclotetrasiloxane, 28.2 g of which was reacted with 32.2 g N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-3-butenamide to give a reactive cyclic dye compound, 3.02 g of the resulting dye compound was mixed with heptamethylphenylcyclotetrasiloxane, dimethylvinylsilyl-terminated dimethylpolysiloxane 73, octamethylcyclotetrasiloxane 4,473.6, 1,3,5-trimethyl-1,3,5-triphenylcyclotrisiloxane 340, and potassium trimethylsilanoate 0.139 g and heated at 150-160° to give a dimethylvinylsilyl-terminated polysiloxane with Mn 88,600, refractive index >1.46, and yellow dye content 0.16%.

IC ICM C08L083-04

ICS C08G077-04

INCL 528015000; 528032000; 528033000; 528037000; 524866000

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 63

ST high refractive index silicone prepolymer blue light absorption; azo dye contg polysiloxane prepolymer prep

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(acrylic, dye-containing; preparation of high refractive index

silicone-containing

prepolymers with blue light absorption capability)

IT Polysiloxanes, uses

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(dye-containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Medical goods

(**ophthalmic**; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Reactive dyes

(polysiloxane containing; preparation of high refractive index

silicone-containing

prepolymers with blue light absorption capability)

IT Acrylic polymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polysiloxane-, dye-containing; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polysiloxane-; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT Polysiloxanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polyurethane-; preparation of high refractive index silicone-containing

prepolymers with blue light absorption capability)

IT **Eye**
Intraocular lenses
(preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

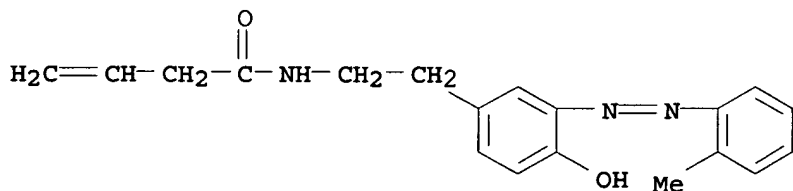
IT 15721-05-8P, Heptamethylcyclotetrasiloxane 59942-04-0P,
Dimethylvinylsilyl-terminated polydimethylsiloxane 60162-06-3P,
1,3-Divinyltetramethyldisiloxane-octamethylcyclotetrasiloxane copolymer
847593-98-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT 847593-99-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT 75-54-7, Dichloromethylsilane 541-05-9, Hexamethylcyclotrisiloxane
847161-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

IT 847161-57-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of high refractive index silicone-containing prepolymers with blue light absorption capability)

RN 847161-57-3 HCAPLUS
CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI)
(CA INDEX NAME)



L34 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2005:220184 HCAPLUS
DN 142:285295
TI Novel reactive yellow dyes useful for ocular devices
IN Lai, Yu-Chin
PA USA
SO U.S. Pat. Appl. Publ., 6 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

application

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005054797	A1	20050310	US 2003-657495	20030908

WO 2005026266 A1 20050324 WO 2004-US27008 20040819
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

PRAI US 2003-657495 A 20030908

OS MARPAT 142:285295

AB The invention relates to novel azo-based reactive yellow dyes (e.g.,
N,N-bis(2-allylcarbamatoethyl)-(4'-phenylazo)aniline) and a process for
manufacturing and using ocular devices having blue light absorption
properties. **Intraocular lenses** so produced block blue
light from reaching the retina of an eye implanted with the IOL.
By blocking blue light from reaching the retina, the IOL thereby prevents
potential damage to the retina. The ocular device is selected
from the group consisting of contact lenses, keratoprotheses,
capsular bag extension rings, corneal inlays, corneal rings and
intraocular lenses.

IC ICM C08F030-08

INCL 526319000; 526279000

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37, 41

ST reactive yellow dye **intraocular lense ocular**
device

IT Prosthetic materials and Prosthetics
(implants; novel reactive yellow dyes useful for **ocular**
devices)

IT Azo dyes
Coating materials
Contact lenses
Intraocular lenses
Reactive dyes
(novel reactive yellow dyes useful for **ocular devices**)

IT **Polysiloxanes**, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel reactive yellow dyes useful for **ocular devices**)

IT 2452-84-8P, C.I. Solvent Yellow 58 847356-36-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; novel reactive yellow dyes useful for **ocular**
devices)

IT 7440-06-4D, Platinum, **cyclovinylnmethyilsiloxane** complex
RL: CAT (Catalyst use); USES (Uses)
(novel reactive yellow dyes useful for **ocular devices**)

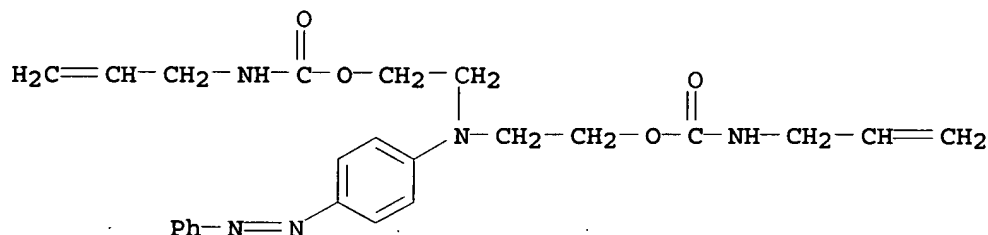
IT 156048-34-9D, Dimethylsilanediol-diphenylsilanediol copolymer,
vinyl-terminated
RL: POF (Polymer in formulation); THU (Therapeutic use); BIOL (Biological
study); USES (Uses)
(novel reactive yellow dyes useful for **ocular devices**)

IT 51-67-2, p- β -Aminoethylphenol 95-53-4, o-Toluidine, reactions
1470-91-3, Vinylacetyl chloride 1476-23-9, Allyl isocyanate
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting materials; novel reactive yellow dyes useful for
ocular devices)

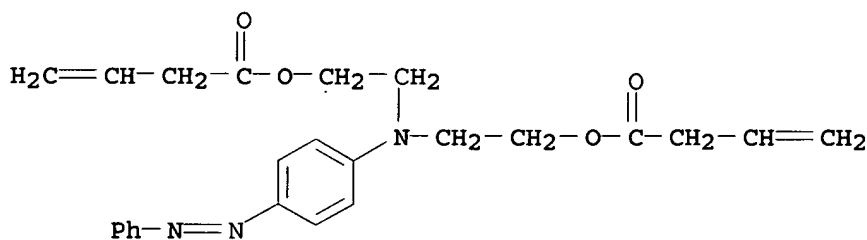
IT 847161-51-7P, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline 847161-54-0P, N,N-Bis-(2-vinylacetoxylethyl)-(4'-phenylazo)aniline 847161-57-3P
 RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (yellow dyes; novel reactive yellow dyes useful for ocular devices)

IT 847161-51-7P, N,N-Bis-(2-allylcarbamatoethyl)-(4'-phenylazo)aniline 847161-54-0P, N,N-Bis-(2-vinylacetoxylethyl)-(4'-phenylazo)aniline 847161-57-3P
 RL: IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (yellow dyes; novel reactive yellow dyes useful for ocular devices)

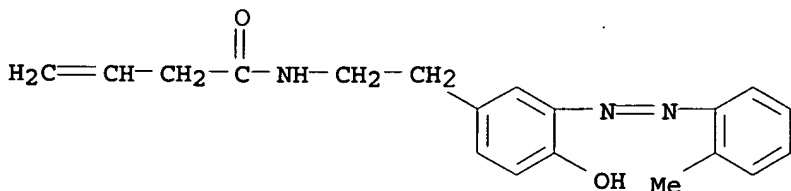
RN 847161-51-7 HCAPLUS
 CN Carbamic acid, 2-propenyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



RN 847161-54-0 HCAPLUS
 CN 3-Butenoic acid, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)

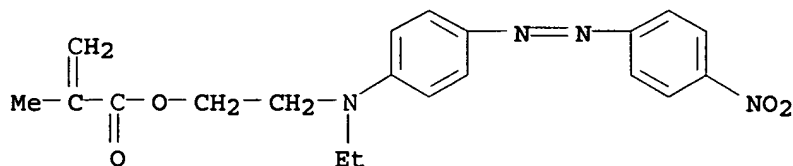


RN 847161-57-3 HCAPLUS
 CN 3-Butenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]- (9CI) (CA INDEX NAME)



L34 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2003:693554 HCAPLUS
 DN 140:242479
 TI Optically Induced Mass Transport Generated in Near-Fields
 AU Stiller, B.; Karageorgiev, P.; Buchsteiner, A.; Geue, Th.; Henneberg, O.; Brehmer, L.; Natansohn, A.; Hollricher, O.
 CS Institute of Physics, Univ. Potsdam, Potsdam, D-14415, Germany
 SO Proceedings of SPIE-The International Society for Optical Engineering (2003), 5122(Advanced Organic and Inorganic Optical Materials), 173-178 CODEN: PSISDG; ISSN: 0277-786X
 PB SPIE-The International Society for Optical Engineering
 DT Journal
 LA English
 AB In the last few years a range of techniques for opto-mech. manipulations of organic films and small structures has been developed and significantly improved. Among these techniques a very promising candidate turned out to be the optically induced mass transport. Not only that the phys. mechanisms underlying this phenomenon is not yet been fully understood, but in addition, the lateral dimensions of structures created in that way have been limited by the used light wavelength. In order to gain deeper insight into the phys. fundamentals of this phenomenon and to open possibilities for applications (lithog., data storage, manipulation of mols., ...) it is necessary to create and study reproducible, sharply defined single structures not only in a macroscopic but also in nanometer range. SNOM (Scanning Nearfield Optical Microscopy) seemed to us an intriguing method to approach this goal. We report here novel exptl. results about the generation of ultra-small structures by optically driven mass transport. We have investigated different ways to generate localized mass transport in azobenzene-containing films by using focused light in far and nearfields. Thus, the dimensions of optically created structures range to 5 µm (lens focusing) and even down to 100 nm (SNOM nearfield). These expts. offer new expectations to manipulate ultra small objects on surfaces by optical means without mech. touching them.
 CC 71-11 (Nuclear Technology)
 Section cross-reference(s): 73, 74
 ST optical mass transport azobenzene near field; polymer film optical mass transport near field
 IT Mass transfer
 Microstructure
 (optically induced mass transport generated in near-fields)
 IT 103-33-3, Azobenzene
 RL: CPS (Chemical process); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (optically induced mass transport generated in near-fields)
 IT 139096-37-0
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
 (optically induced mass transport generated in near-fields)
 IT 139096-37-0
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PROC (Process); USES (Uses)
 (optically induced mass transport generated in near-fields)
 RN 139096-37-0 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 103553-48-6

CMF C20 H22 N4 O4



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:214961 HCAPLUS

DN 138:243355

TI Silicone copolymer reaction products with dyes for **intraocular lenses**

IN Ichinohe, Takashi

PA Canon Star K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003084242	A2	20030319	JP 2001-279077	20010914
	US 2003078359	A1	20030424	US 2002-236584	20020905
	US 6878792	B2	20050412		
	CN 1408709	A	20030409	CN 2002-131696	20020912
	EP 1293541	A2	20030319	EP 2002-256409	20020913
	EP 1293541	A3	20030528		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	US 2005101690	A1	20050512	US 2004-966752	20041014
PRAI	JP 2001-279077	A	20010914		
	US 2002-236584	A3	20020905		

OS MARPAT 138:243355

AB This invention relates to colored soft **intraocular lenses** which show spectral transmission properties similar to human **lenses**. The **lens** materials comprise silicone polymers with side chain hydrosilyl groups reacted with arylazobenzene derivs. Silicone rubber (KE 103) was treated with 4-(4'-allyloxycarbonylphenylazo)-3-methyl-1-phenylpyrazolone and 2-hydroxy-4-methacryloyloxyethoxybenzophenone to give a colored **intraocular** material.

IC ICM G02C007-04

ICS A61L027-00; C08K005-3445; C08L083-05; C08L083-07; C09B029-085; C09B029-50; G02C007-10

CC 63-7 (Pharmaceuticals)

ST polysiloxane arylazobenzene dye hydrosilylation product **intraocular lens**

IT Human

Intraocular lenses

UV stabilizers

(preparation of silicone copolymer hydrosilylation products with yellow dyes for **intraocular lenses**)

IT Silicone rubber, biological studies

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(reaction products, with allyloxypyrazolone derivative and methacryloyloxybenzophenone; preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

IT Polysiloxanes, biological studies

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(reaction products, with arylazobenzene derivs.; preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

IT 501952-94-9P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of colored acrylate polymers)

IT 103-33-3, Azobenzene 106-95-6, Allylbromide, reactions 107-18-6, Allyl alcohol, reactions 150-13-0, 4-Aminobenzoic acid 1520-21-4, 4-Aminostyrene 19735-89-8, 3-Methyl-1-phenylpyrazolone

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

IT 7014-29-1P 17333-88-9P 30926-22-8P 88801-39-2P 93870-83-8P 118969-55-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

IT 2035-72-5DP, reaction products with silicone rubber and allyloxycarbonylphenylazophenylpyrazolone 156118-35-3DP, Dimethylsilanediol-methylhydrogensilanediol copolymer, hydrosilylation products with diallyl(phenylazo)aniline and methacryloyloxyethoxybenzophenone

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

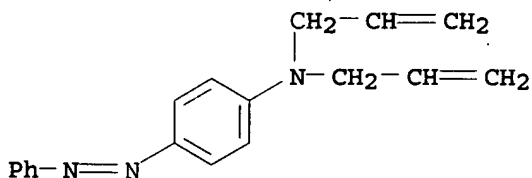
IT 93870-83-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of silicone copolymer hydrosilylation products with yellow dyes for intraocular lenses)

RN 93870-83-8 HCAPLUS

CN Benzenamine, 4-(phenylazo)-N,N-di-2-propenyl- (9CI) (CA INDEX NAME)



L34 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:302135 HCAPLUS

DN 135:84194

TI Photoaddressable polymers for rewritable optical disk systems

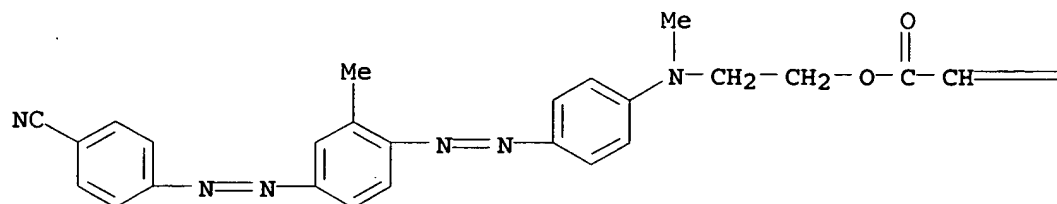
AU Sabi, Yuichi; Yamamoto, Masanobu; Watanabe, Hidetoshi; Bieringer, Thomas;

Haarer, Dietrich; Hagen, Rainer; Kostromine, Serguei G.; Berneth, Horst
CS Giga Byte Laboratory, HNC, Sony Corporation, Tokyo, 141-0001, Japan
SO Japanese Journal of Applied Physics, Part 1: Regular Papers, Short Notes &
Review Papers (2001), 40(3B), 1613-1618
CODEN: JAPNDE; ISSN: 0021-4922
PB Japan Society of Applied Physics
DT Journal
LA English
AB The authors studied photoaddressable polymers (PAPs) applicable to optical
disk systems. PAPs represent a new class of organic rewritable materials
that exhibit a huge signal birefringence (Δn) at the readout
wavelength. By optimizing the disk structure and the readout optics, the
signal amplitude is proved to be sufficient for the optical disk systems.
A low noise profile and sharp recording profile led to a maximum
carrier-to-noise ratio (C/N) of 58 dB and a clear eye-pattern.
They also showed a potential for multi-level recording, since the
recording was dominated by a pure photon mode.
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
ST photoaddressable polymer rewritable optical disk; azobenzene contg vinyl
polymer erasable optical disk
IT Erasable optical disks
(photoaddressable polymers with azobenzene containing pendant groups for
rewritable optical disk systems)
IT Optical recording
(rewritable optical disk systems; photoaddressable polymers with
azobenzene containing pendant groups for rewritable optical disk systems)
IT 7631-86-9, Silica, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(application of signal amplitude enhancement with SiO₂ or Si₃N₄ layer
in optical recording on photoaddressable polymer with azobenzene containing
pendant groups for rewritable optical disk systems)
IT 12033-89-5, Silicon nitride, properties
RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)
(application of signal amplitude enhancement with SiO₂ or Si₃N₄ layer
in optical recording on photoaddressable polymer with azobenzene containing
pendant groups for rewritable optical disk systems)
IT 7440-22-4, Silver, uses
RL: DEV (Device component use); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for
rewritable optical disk systems)
IT 346725-18-6
RL: DEV (Device component use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for
rewritable optical disk systems)
IT 346725-18-6
RL: DEV (Device component use); PEP (Physical, engineering or chemical
process); PRP (Properties); PROC (Process); USES (Uses)
(photoaddressable polymers with azobenzene containing pendant groups for
rewritable optical disk systems)
RN 346725-18-6 HCAPLUS
CN 2-Propenoic acid, 2-[[[4-[[[4-[(4-cyanophenyl)azo]-2-
methylphenyl]azo]phenyl]methylamino]ethyl ester, polymer with
2-[4-[[[4-[(4-cyanophenyl)azo]phenyl]amino]carbonyl]phenoxy]ethyl
2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 346725-17-5
CMF C26 H24 N6 O2

PAGE 1-A



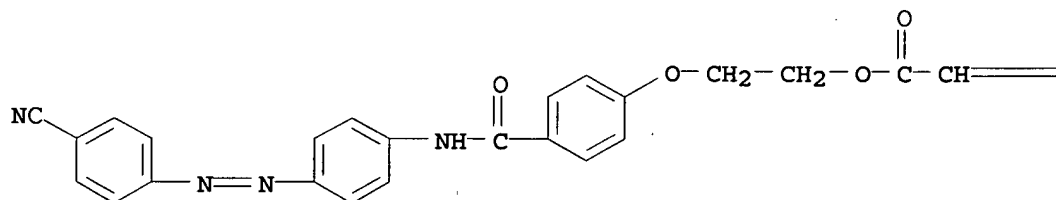
PAGE 1-B

=CH₂

CM 2

CRN 346725-16-4
CMF C25 H20 N4 O4

PAGE 1-A



PAGE 1-B

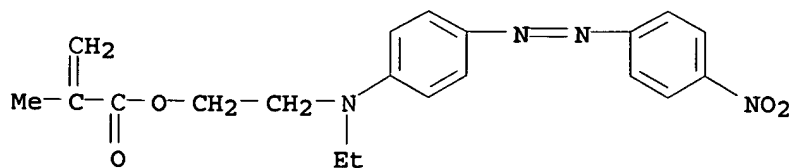
=CH₂

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:715430 HCAPLUS
DN 130:82226
TI Scanning second harmonic microscopy techniques with monomode and near
field optical fibers
AU Adameck, M.; Blum, R.; Eich, M.
CS Materialien der Mikroelektronik, Technische Universitat Hamburg-Harburg,
Martin-Leuschel-Ring 16, Hamburg, D-21073, Germany

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

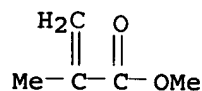
SO Applied Physics Letters (1998), 73(20), 2884-2886
 CODEN: APPLAB; ISSN: 0003-6951
 PB American Institute of Physics
 DT Journal
 LA English
 AB Extending our scanning second harmonic microscopy (SSHM) technique for the detection of lateral orientational inhomogeneities in high field poled polymer films, we present results with considerably improved lateral resolution by using optical fiber technol. Two exptl. setups for measuring the $\chi(2)$ susceptibility of thin films are introduced. The first setup uses a standard monomode IR-fiber with 10 μm core that carries the coherent fundamental IR wave to the surface of a poled polymer film (illumination mode). The generated doubled frequency wave behind the nonlinear optical sample is detected by a photomultiplier tube. In the second setup a lens focuses the fundamental wave into the poled film. The resulting second harmonic wave is coupled into a 2.5 μm single mode fiber. SSHM micrographs of high field poled nonlinear optical polymer films were obtained with lateral resolns. of <3.5 μm . SSHM was also realized with a scanning near field optical microscopy fiber in pick up mode.
 CC 37-5 (Plastics Manufacture and Processing)
 ST polymethacrylate nonlinear susceptibility scanning microscopy; scanning second harmonic microscopy polymer; optical fiber scanning microscopy polymer
 IT Optical fibers
 Scanning microscopy
 Second-order nonlinear optical susceptibility
 (use of optical fibers in scanning second harmonic microscopy for determination of polymer nonlinear optical properties)
 IT 119989-05-8, Methyl methacrylate-Disperse Red 1 methacrylate copolymer
 RL: PRP (Properties)
 (use of optical fibers in scanning second harmonic microscopy for determination of polymer nonlinear optical properties)
 IT 119989-05-8, Methyl methacrylate-Disperse Red 1 methacrylate copolymer
 RL: PRP (Properties)
 (use of optical fibers in scanning second harmonic microscopy for determination of polymer nonlinear optical properties)
 RN 119989-05-8 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, 2-[ethyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 103553-48-6
 CMF C20 H22 N4 O4



CM 2

CRN 80-62-6

CMF C5 H8 O2



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:763638 HCAPLUS

DN 123:146693

TI Polymerizable yellow dyes and their use in ophthalmic lenses

IN Jinkerson, David L.

PA Alcon Laboratories, Inc., USA

SO PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9511279	A1	19950427	WO 1994-US11485	19941011
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5470932	A	19951128	US 1993-138663	19931018
	AU 9480147	A1	19950508	AU 1994-80147	19941011
	AU 674262	B2	19961212		
	EP 674684	A1	19951004	EP 1994-931331	19941011
	EP 674684	B1	19990127		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 08503997	T2	19960430	JP 1995-511973	19941011
	AT 176268	E	19990215	AT 1994-931331	19941011
	ES 2127419	T3	19990416	ES 1994-931331	19941011
	CA 2147856	C	19990427	CA 1994-2147856	19941011
	JP 2003119226	A2	20030423	JP 2002-256083	19941011
	US 5528322	A	19960618	US 1995-447334	19950522
	US 5543504	A	19960806	US 1995-445799	19950522
	US 5662707	A	19970902	US 1996-667347	19960621
	JP 09187499	A2	19970722	JP 1996-322885	19961203
	JP 3375841	B2	20030210		
	JP 09187500	A2	19970722	JP 1996-322886	19961203
	JP 3375842	B2	20030210		
	HK 1013092	A1	20000407	HK 1998-113834	19981217
PRAI	US 1993-138663	A	19931018		
	JP 1995-511973	A3	19941011		
	JP 1996-322886	A3	19941011		
	WO 1994-US11485	W	19941011		
	US 1995-445809	B1	19950705		

OS MARPAT 123:146693

AB The polymerizable yellow dyes consist of an otherwise (un)substituted azobenzene nucleus having (1) a C1-6 alkyl substituent with ≥ 1

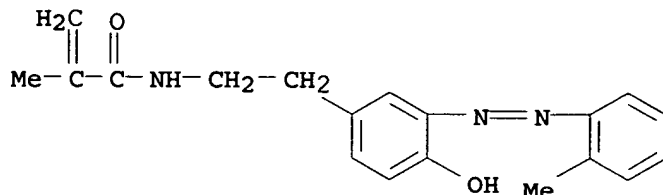
(meth)acryloyloxy and/or (meth)acrylamido group bonded to it via an acyclic spacer group consisting of 1-10 atoms selected from C, H, Si, O, N, P, S, Cl, Br, and F or (2) a p-amino substituent with 2 (meth)acryloyloxy and/or (meth)acrylamido groups bonded to it via 1-2 such spacer groups each. The dyes are used to block or lower the intensity of blue light transmitted through **ocular lenses** and other windows.

- IC ICM C09B069-10
- ICS G02B001-04; C08F020-60; C08F220-60; C08F246-00
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 35, 38, 42, 63
- ST polymerizable yellow dye **intraocular lens**; blue blocking **lens**
- IT Coating materials
(**ophthalmic lenses** coated with polymers comprising polymerizable yellow azo dyes)
- IT Dyes, azo
(polymerizable yellow azo dyes and their use in **ophthalmic lenses**)
- IT **Lenses**
(contact, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)
- IT **Lenses**
(eyeglass, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)
- IT **Lenses**
(intraocular, polymerizable yellow azo dyes and their use in **ophthalmic lenses**)
- IT 167094-66-8P 167094-67-9P
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP** (Preparation); RACT (Reactant or reagent)
(polymerizable yellow azo dyes and their use in **ophthalmic lenses**)
- IT 37140-99-1P
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP** (Preparation); RACT (Reactant or reagent)
(preparation of polymerizable yellow azo dyes for use in **ophthalmic lenses**)
- IT 51-67-2, Tyramine 62-53-3, Benzenamine, reactions 95-53-4, o-Toluidine, reactions 120-07-0, Phenyl-diethanolamine 760-93-0, Methacrylic anhydride 2452-84-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of polymerizable yellow azo dyes for use in **ophthalmic lenses**)
- IT 167094-68-0P 167094-69-1P
RL: DEV (Device component use); IMF (Industrial manufacture); **PREP** (Preparation); **USES** (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)
- IT 167094-70-4P 167094-71-5P
RL: DEV (Device component use); IMF (Industrial manufacture); **THU** (Therapeutic use); **BIOL** (Biological study); **PREP** (Preparation); **USES** (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)
- IT 167094-66-8P 167094-67-9P
RL: IMF (Industrial manufacture); RCT (Reactant); **PREP** (Preparation); RACT (Reactant or reagent)
(polymerizable yellow azo dyes and their use in **ophthalmic**

lenses)

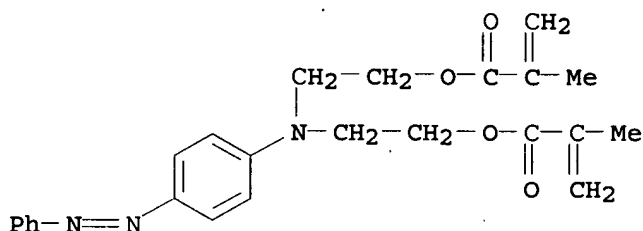
RN 167094-66-8 HCAPLUS

CN 2-Propenamide, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl- (9CI) (CA INDEX NAME)



RN 167094-67-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester (9CI) (CA INDEX NAME)



IT 167094-68-0P 167094-69-1P

RL: DEV (Device component use); IMF (Industrial manufacture); **PREP** (Preparation); USES (Uses)
(preparation of polymers of polymerizable yellow azo dyes for **ophthalmic lenses**)

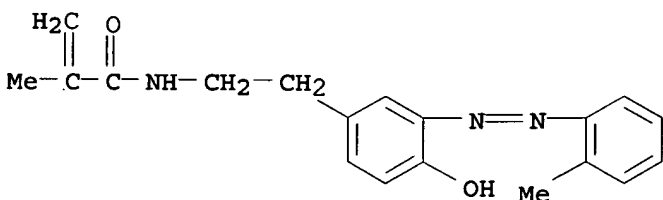
RN 167094-68-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenylethyl ester, polymer with 1,4-butanediyl di-2-propenoate, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl-2-propenamide and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 167094-66-8

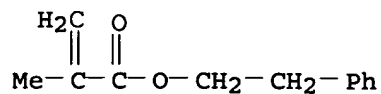
CMF C19 H21 N3 O2



CM 2

CRN 3683-12-3

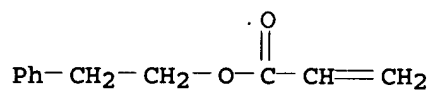
CMF C12 H14 O2



CM 3

CRN 3530-36-7

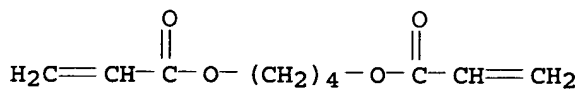
CMF C11 H12 O2



CM 4

CRN 1070-70-8

CMF C10 H14 O4



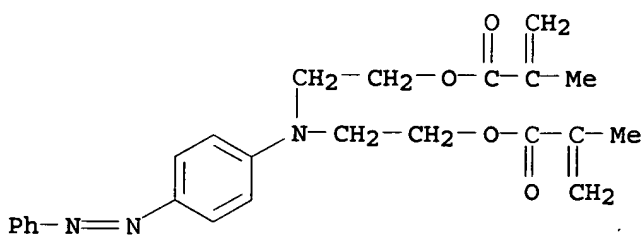
RN 167094-69-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]iminoldi-2,1-ethanediyl ester, polymer with 1,4-butanediyl di-2-propenoate, 2-phenylethyl 2-methyl-2-propenoate and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 167094-67-9

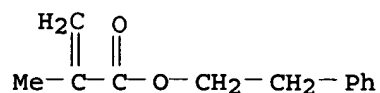
CMF C24 H27 N3 O4



CM 2

CRN 3683-12-3

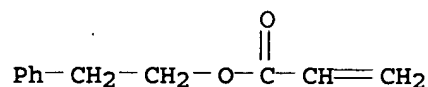
CMF C12 H14 O2



CM 3

CRN 3530-36-7

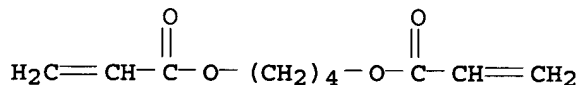
CMF C11 H12 O2



CM 4

CRN 1070-70-8

CMF C10 H14 O4



IT 167094-70-4P 167094-71-5P

RL: DEV (Device component use); IMF (Industrial manufacture); THU (Therapeutic use); BIOL (Biological study); **PREP (Preparation)**; USES (Uses)

(preparation of polymers of polymerizable yellow azo dyes for ophthalmic lenses)

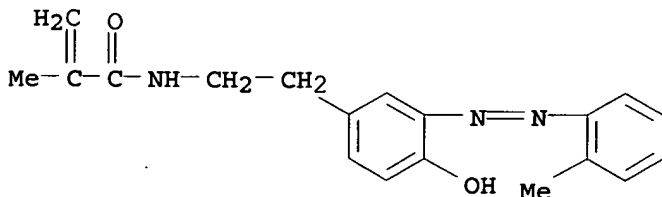
RN 167094-70-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-phenylethyl ester, polymer with 2-(2H-benzotriazol-2-yl)-4-methyl-6-(2-methyl-2-propenyl)phenol, 1,4-butanediyl di-2-propenoate, N-[2-[4-hydroxy-3-[(2-methylphenyl)azo]phenyl]ethyl]-2-methyl-2-propenamide and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 167094-66-8

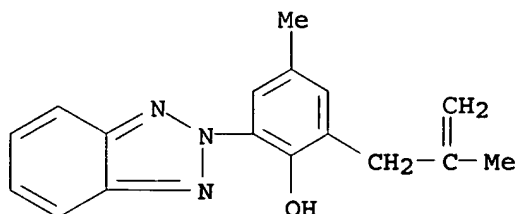
CMF C19 H21 N3 O2



CM 2

CRN 98809-58-6

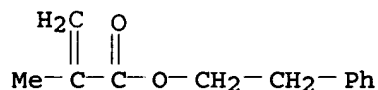
CMF C17 H17 N3 O



CM 3

CRN 3683-12-3

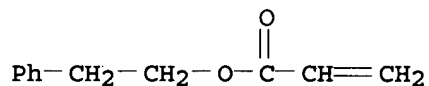
CMF C12 H14 O2



CM 4

CRN 3530-36-7

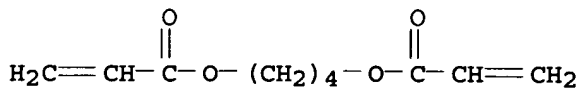
CMF C11 H12 O2



CM 5

CRN 1070-70-8

CMF C10 H14 O4

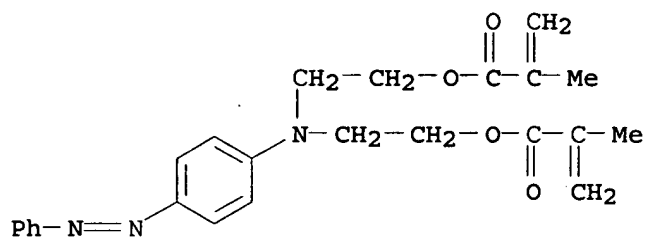


RN 167094-71-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [[4-(phenylazo)phenyl]imino]di-2,1-ethanediyl ester, polymer with 2-(2H-benzotriazol-2-yl)-4-methyl-6-(2-methyl-2-propenyl)phenol, 1,4-butanediyl di-2-propenoate, 2-phenylethyl 2-methyl-2-propenoate and 2-phenylethyl 2-propenoate (9CI) (CA INDEX NAME)

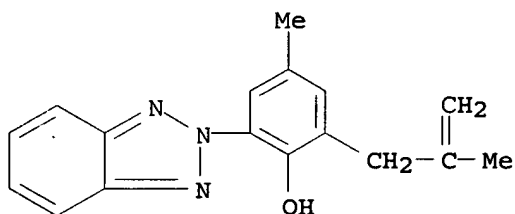
CM 1

CRN 167094-67-9
CMF C24 H27 N3 O4



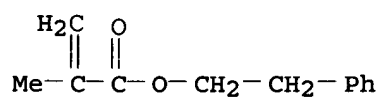
CM 2

CRN 98809-58-6
CMF C17 H17 N3 O



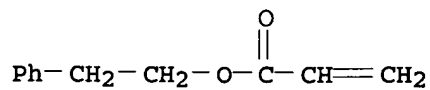
CM 3

CRN 3683-12-3
CMF C12 H14 O2



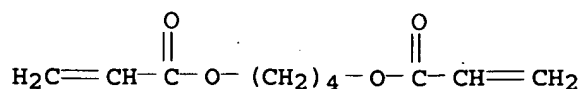
CM 4

CRN 3530-36-7
CMF C11 H12 O2

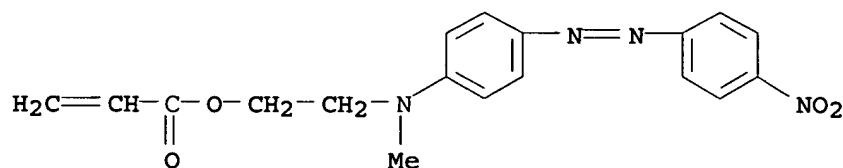


CM 5

CRN 1070-70-8
CMF C10 H14 O4



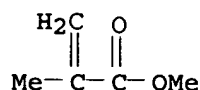
L34 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1991:643460 HCAPLUS
 DN 115:243460
 TI Polymeric electrooptic phase modulators formed by self-alignment over channels etched into indium phosphide
 AU Hill, J. R.; Pantelis, P.
 CS Br. Telecom Res. Lab., Martlesham Heath/Ipswich, IP5 7RE, UK
 SO Journal of Applied Physics (1991), 70(8), 4649-51
 CODEN: JAPIAU; ISSN: 0021-8979
 DT Journal
 LA English
 AB Waveguides which are single mode at a wavelength of 1.32 μm , and which have linear electrooptic properties, were fabricated by spin coating polymers onto etched InP. The side-chain polymer, which comprises the core of the waveguide, develops linear electrooptic properties following an elec. field alignment process. A phase modulator was fabricated by this method and has a switching voltage of 30 V, for a π phase change. The total insertion loss of the device was measured between single-mode lensed fibers to the 9.4 dB. The electrooptic coefficient of the core polymer was calculated from the switching voltage using the geometry of the device and was (6 to 11) + 10-12 m/V.
 CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 36
 ST polymer electrooptical phase modulator indium phosphide
 IT Optical instruments
 (electro-, modulators, phase, from polymer waveguide over channels etched in indium phosphide)
 IT 136326-92-6
 RL: PRP (Properties)
 (electrooptical phase modulator based on)
 IT 22398-80-7, Indium phosphide, uses and miscellaneous
 RL: PRP (Properties)
 (electrooptical phase modulator by polymer spin coated onto etched surface of)
 IT 136326-92-6
 RL: PRP (Properties)
 (electrooptical phase modulator based on)
 RN 136326-92-6 HCAPLUS
 CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
 2-[methyl[4-[(4-nitrophenyl)azo]phenyl]amino]ethyl 2-propenoate (9CI) (CA INDEX NAME)
 CM 1
 CRN 95166-98-6
 CMF C18 H18 N4 O4



CM 2

CRN 80-62-6

CMF C5 H8 O2



L34 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1976:35357 HCAPLUS

DN 84:35357

TI Contact lenses formed from methacrylic esters copolymerized with reactive dyes

PA Tanabe Seiyaku Co., Ltd., Japan

SO Brit., 6 pp.

CODEN: BRXXAA

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1400892	A	19750723	GB 1973-21711	19730507
	JP 49006939	A2	19740122	JP 1972-45236	19720508
	DE 2323199	A1	19731213	DE 1973-2323199	19730508
PRAI	JP 1972-45236	A	19720508		

AB Colored contact lenses were prepared by copolymerizing methacrylate esters with dyes. E.g., a yellow lens having absorption maximum at 470 mμ consisted of ethylene glycol monomethacrylate-diglycol monomethacrylate-diglycol dimethylacrylate-1-(o-tolylazo)-2-naphthol acrylate copolymer.

IC C08F

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37

ST contact lens colored

IT Lenses

(contact, colored, methacrylate-dye copolymers)

IT	57619-71-3	57619-73-5	57619-75-7	57619-77-9	57619-79-1
	57619-81-5	57619-83-7	57619-84-8	57619-85-9	57619-87-1
	57619-89-3				

RL: BIOL (Biological study)

(colored contact lens material)

IT 57619-89-3

RL: BIOL (Biological study)

(colored contact lens material)

RN 57619-89-3 HCAPLUS

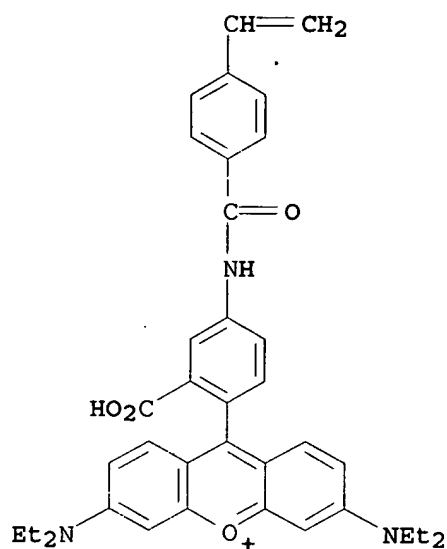
CN Xanthylum, 9-[2-carboxy-4-[(4-ethenylbenzoyl)amino]phenyl]-3,6-

bis(diethylamino)-, chloride, polymer with 2-(2-hydroxyethoxy)ethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methyl-N-[1-[(2-methylphenyl)azo]-2-naphthalenyl]-2-propenamide and oxydi-2,1-ethanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

CM 1

CRN 57619-88-2

CMF C37 H38 N3 O4 . Cl

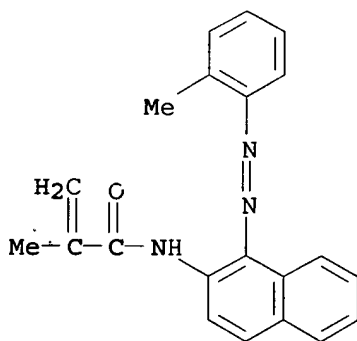


● Cl⁻

CM 2

CRN 14473-46-2

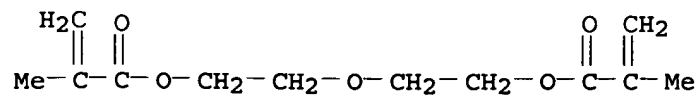
CMF C21 H19 N3 O



CM 3

CRN 2358-84-1

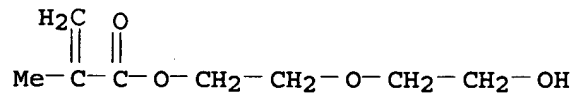
CMF C12 H18 O5



CM 4

CRN 2351-43-1

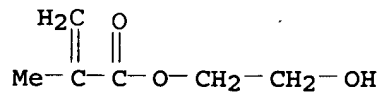
CMF C8 H14 O4



CM 5

CRN 868-77-9

CMF C6 H10 O3



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